WHAT IS CLAIMED IS:

1. A light source device used at the time of separating, into N color components, light which is irradiated toward an original and is one of transmitted through and reflected by the original, said light source device comprising:

a light source section formed from M light emitting elements having different emission spectrums, wherein M>N; and

a controller controlling overall spectral characteristics of light emitted from the light source section by controlling at least one of lighting and extinguishing of each of the M light-emitting elements of the light source section, emission intensity of each of the M light-emitting elements of the light source section, and emission time of each of the M light-emitting elements of the light source section.

2. The light source device according to claim 1, wherein light emitted from the light source section is irradiated onto a recording material after the light has been either transmitted through an original or reflected by an original, and the controller determines desired overall spectral characteristics on the basis of at least one of a type of spectral transmission density characteristics of the original and a type of spectral sensitivity characteristics of the recording material, and controls at least one of lighting and extinguishing of each of the M light-emitting elements of the light source section, emission intensity of each of the M light-emitting elements of the light source section, and emission time of each of the M light-emitting elements of the light source section, such that the overall spectral characteristics of the light emitted from the light source section coincide with the determined

desired overall spectral characteristics.

3. The light source device according to claim 2, wherein the controller determines the desired overall spectral characteristics for the light emitted from the light source section, and when the original is a specific type, the controller selectively illuminates light emitting elements corresponding to a specific color component wavelength region according to the desired overall spectral characteristics.

4. The light source device according to claim 2, wherein the controller determines the desired overall spectral characteristics for light emitted from the light source section, and when the original is a monochrome film type, the controller either illuminates light emitting elements of at least two different color component wavelength regions, or illuminates light emitting elements of only a specific single color component wavelength region.

5. The light source device according to claim 1, wherein light emitting elements are provided in the light source section corresponding to each color component wavelength region, and light emitting elements corresponding to at least one color component wavelength region are formed from a plurality of light emitting elements each having a different emission spectrum.

6. The light source device according to claim 1, wherein the controller controls at least one of whether each light emitting element is illuminated, and light intensity of each light emitting element, in the plurality of light emitting elements of the light source section, in accordance with changes due to temperature in emission spectrums of the light emitting elements.

7. The light source device according to claim 1, wherein light emitted from the light source section is provided with a plurality of light source units,

each unit of which emits light having different spectral characteristics, and the controller illuminates different light source units in accordance with a type of the original.

8. The light source device according to claim 1, wherein light emitting elements are provided in the light source section corresponding to each color component wavelength region and light emitting elements corresponding to at least one color component wavelength region are provided with a single light source unit formed from a plurality of light emitting elements each having a different emission spectrum.

9. A device for reading an original, the device comprising:

a light source section formed from M light emitting elements each having a different emission spectrum;

a sensing apparatus dividing, into N color components wherein N<M, light which has been emitted from the light source section and has been transmitted through or reflected by an original which is being read, the sensing apparatus converting the divisional color components into electric signals; and

a controller for controlling overall spectral characteristics of light emitted from the light source section by controlling at least one of lighting and extinguishing of each light emitting element, emission intensity of each light emitting element, and emission time of each light emitting element.

10. The device according to claim 9, wherein light emitting elements are provided in the light source section corresponding to each color component wavelength region, and light emitting elements corresponding to at least one color component wavelength region are formed from a plurality of light

emitting elements each having a different emission spectrum.

11. The device according to claim 9, wherein the controller determines desirable spectral characteristics of light emitted from the light source section based on a type of original to be read, and the controller controls at least one of lighting and extinguishing of each of the M light-emitting elements of the light source section, emission intensity of each of the M light-emitting elements of the light source section, and emission time of each of the M light-emitting elements of the light source section such that the overall spectral characteristics of the light emitted from the light source section coincide with the determined desired overall spectral characteristics.

12. The device according to claim 9, wherein the controller controls at least one of whether each light emitting element is illuminated, light intensity of each light emitting element, and emission time of each light emitting element in the plurality of light emitting elements of the light source section, in accordance with changes due to temperature in emission spectrums of the light emitting elements.

13. The device according to claim 10, wherein at least some of the light emitting elements have an emission spectrum corresponding to a red color component wavelength region, and when the original is a reversal film, the controller controls light emitting elements having an emission spectrum corresponding to a red color component wavelength region to shift in a direction towards shorter wavelengths, relative to when the original is a negative film.

14. The device according to claim 10, wherein, based on a type of the original, the controller determines desired overall spectral characteristics for

light emitted from the light source section, and when the original is a specific type, the controller selectively illuminates light emitting elements corresponding to a specific color component wavelength region according to the desired spectral characteristics.

15. The device according to claim 9, wherein, when the original being read is a monochrome film, the controller either simultaneously illuminates each of light emitting elements of at least two different color component wavelength regions, or illuminates light emitting elements of only a specific single color component wavelength region.

16. The device according to claim 9, wherein the light source section is provided with a plurality of light source units each of which emits light having different spectral characteristics, and the controller illuminates different light source units in accordance with a type of the original being read.

17. The device according to claim 9, wherein light emitting elements are provided in the light source section corresponding to each color component wavelength region, and a light source unit is provided having light emitting elements corresponding to at least one color component wavelength region, with the light emitting elements in the light source unit each having a different emission spectrum.

18. The device according to claim 9, further comprising an image processor for performing image processing on image data obtained when the sensing apparatus outputs electrical signals from light received that has passed through or been reflected from an original under processing conditions that correspond to the controlling of the light source section by the controller.

19. The device according to claim 9, wherein the sensing apparatus

divides, into N color components, light which has been transmitted through or reflected by the original and has been incident on the sensing apparatus, and the sensing apparatus carries out sensing by using a charge-accumulating-type light sensor which accumulates charges corresponding to light amounts of respective color component lights, and the sensing apparatus has an accumulating time controller which controls the charge accumulating time at the charge-accumulating-type sensor in accordance with control of the light source section carried out by the controller.

20. A method for producing light for reading an original, wherein the light is either transmitted through an original to be read or reflected by the original, and thereafter, the light is separated into N color components, and electrical signals are produced, the method comprising the steps of:

forming a light source section from M light emitting elements each having a different emission spectrum, wherein M>N;

determining a type of the original, which will be read using emitted light from the light source section;

selecting desired overall spectral characteristics for light emitted from the light source section based on the type of the original; and

providing overall spectral characteristics for light emitted from the light source section by controlling at least one of whether each of the M light emitting elements is illuminated, emission intensity of each of the M light emitting elements, and emission time of each of the M light emitting elements, in accordance with the selected overall spectral characteristics.